



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,259	12/22/2003	Jeffrey Dean Lindsay	KCX-736 (18588)	4457
22827 7590 10/22/2007 DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			EXAMINER CRAIG, PAULA L	
			ART UNIT 3761	PAPER NUMBER
			MAIL DATE 10/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/743,259

Applicant(s)

LINDSAY ET AL.

Examiner

Paula L. Craig

Art Unit

3761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 15, 16, 18-20, 22-26, 28, 29, 31-33 and 35-37 is/are pending in the application.
- 4a) Of the above claim(s) 15, 18, 19, 25, 28, 31 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 16, 20, 22-24, 26, 29, 33 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. The rejections of Claims 17 and 30 are withdrawn as moot. The objection to the drawings is withdrawn. Applicant's arguments filed August 13, 2007 have been fully considered but they are not persuasive. Applicant argues that Harris teaches application of the adhesive in a swirl pattern, but that the swirls of Harris disappear in the final product, leaving only adhesive masses as shown in Figs. 8, 8A, and 9. Harris teaches various swirl-like patterns, as shown in Figs. 7-11. The loops of the swirl pattern appears most clearly delineated in Fig. 7 and least clearly delineated in Fig. 8-9, with Figs. 10-11 intermediate. Harris does not teach that any of the patterns shown in Figs. 7-9 represent earlier stages in production than the others, and appears to be simply showing that a wide range of patterns are possible. Applicant's specification does not define what is or is not a swirl-like pattern. The usual definition of "swirl" is twisted, whirled, or curving; see the Random House Dictionary Reference. Harris certainly teaches patterns in each of Figs. 7-11 including portions which are twisted, whirled, or curving. As to the term "swirl-like", it would presumably be even broader than the term "swirl", and would include all of the patterns shown in Figs. 7-11 of Harris.

2. Applicant argues that Harris does not teach the adhesive pattern alternating between the swirl-like pattern and a continuous bead. However, Harris teaches swirl-like patterns, such as the vicinity of the crossover points 112 visible in Fig. 7, separated by a continuous bead of adhesive, such as the filament sections 114 (paragraph 39).

Art Unit: 3761

3. Applicant argues that Yoshioka teaches away from a high number of times when the adhesive line L intersects. The claims do not require that the absorbent garment include many loops; a plurality of loops is sufficient. As shown in Figs. 1 and 4 of Yoshioka, it appears that a certain amount of change in loop size and adhesive dose and weight per area would be typically found to at least a small extent in adhesive application due to random factors during the adhesive application process.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 13, 16, 20, 22-24, 26, 29, 33, and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris (U.S. Patent Application Publication No. 2003/0173018) in view of Yoshioka (U.S. Patent No. 6,635,798).

7. For Claims 13, 22, 23, 26, 35, and 36, Harris teaches an absorbent garment or absorbent product with multiple components (diaper, paragraph 5). Harris teaches an adhesive secured between two flat substrates such as those forming a diaper (paragraph 14). The adhesive is applied at least partly according to a swirl-like pattern, with the adhesive pattern changing as a function of distance, and the adhesive pattern changing according to adhesive dose in weight per area along the distance (Figs. 7-11 and paragraphs 39-42). Harris teaches that the adhesive dose of the adhesive pattern changes as a function of distance (Figs. 7-11 and paragraphs 12 and 39-42). Harris teaches the adhesive pattern alternating between the swirl-like pattern and a continuous bead (Fig. 7 and paragraph 39). Harris teaches that the thicker sections of adhesive are formed by crossover points forming conglomerated adhesive masses, with the adhesive masses being preferably at least twice the width of the thinner sections of adhesive (Figs. 7-11 and paragraphs 12 and 39-42). Harris teaches that the thinner sections of adhesive may be stretched to their breaking point (paragraph 42). Harris does not expressly teach the weight per unit area of adhesive applied varying by at least 20%, 50%, or 90% by weight. Applicant's specification does not disclose that having the weight per unit area of adhesive vary by at least 20%, 50%, or 90% by weight serves any stated purpose or solves any particular problem. See *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980). Given Harris' teaching of thick conglomerated adhesive masses joined by thin or even broken adhesive filaments, it would have been obvious to one of ordinary skill in the art for the weight per unit area of adhesive to vary by at least 20%, 50%, or 90% by weight.

Art Unit: 3761

8. Further for Claims 13, 22, 23, 26, 35, and 36, Harris does not expressly teach a plurality of loops in which the size of the loops changes as a function of distance.

However, the size of loops changing as a function of distance is well known in the art.

In addition, Applicant's specification does not disclose that a plurality of loops in which the loops change size as a function of distance serves any stated purpose or solves any particular problem. Yoshioka teaches the size of loops changing as a function of

distance (Figs. 1 and 4; note that the claim does not require any particular amount of size change, nor that the function is regular). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Harris to include a suitable loop size, including a change in loop size as a function of distance, as taught by

Yoshioka. Harris also does not expressly teach the flat substrates of the diaper being the liner, outer cover, or absorbent structure, or the absorbent structure being located adjacent the interior surface of the outer cover. However, it is well known in the art of diaper manufacturing for flat substrates between which elastic strands are adhesively attached to be a liner, an outer cover, or an absorbent structure positioned between the liner and the outer cover, or adjacent to the interior surface of the outer cover. Yoshioka confirms this and teaches elastic strands adhesively attached between a liner and an outer cover and adjacent the interior surface of the outer cover (outer cover is

backsheet 3, Figs. 1 and 3, col. 2, lines 29-38, and col. 6, lines 17-22). It would have been obvious to one of ordinary skill in the art of diaper manufacturing to modify Harris for the adhesively attached flat substrates to be the liner and outer cover of an absorbent garment, as taught by Yoshioka.

9. For Claims 16 and 29, Harris teaches the adhesive filaments having a desired width (paragraph 33). Harris does not expressly teach the adhesive being applied in an amount ranging from about 1 gsm to about 100 gsm. Yoshioka teaches the adhesive being applied in an amount ranging from about 1 gsm to about 100 gsm or about 50 gsm (col. 6, lines 7-14). Adhesive amount is a result effective variable, since it affects the strength of the bonds created. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art. See *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).
10. For Claims 20 and 33, Harris teaches the garment being a diaper (paragraphs 13 and 14).
11. For Claims 24 and 37, Harris teaches the continuous bead having a zigzag pattern or a scalloped pattern (Figs. 7-8a).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3761

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paula L. Craig whose telephone number is (571) 272-5964. The examiner can normally be reached on M-F 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paula L Craig
Examiner
Art Unit 3761

PLC

TATYANA ZALUKAEVA
SUPERVISORY PRIMARY EXAMINER

